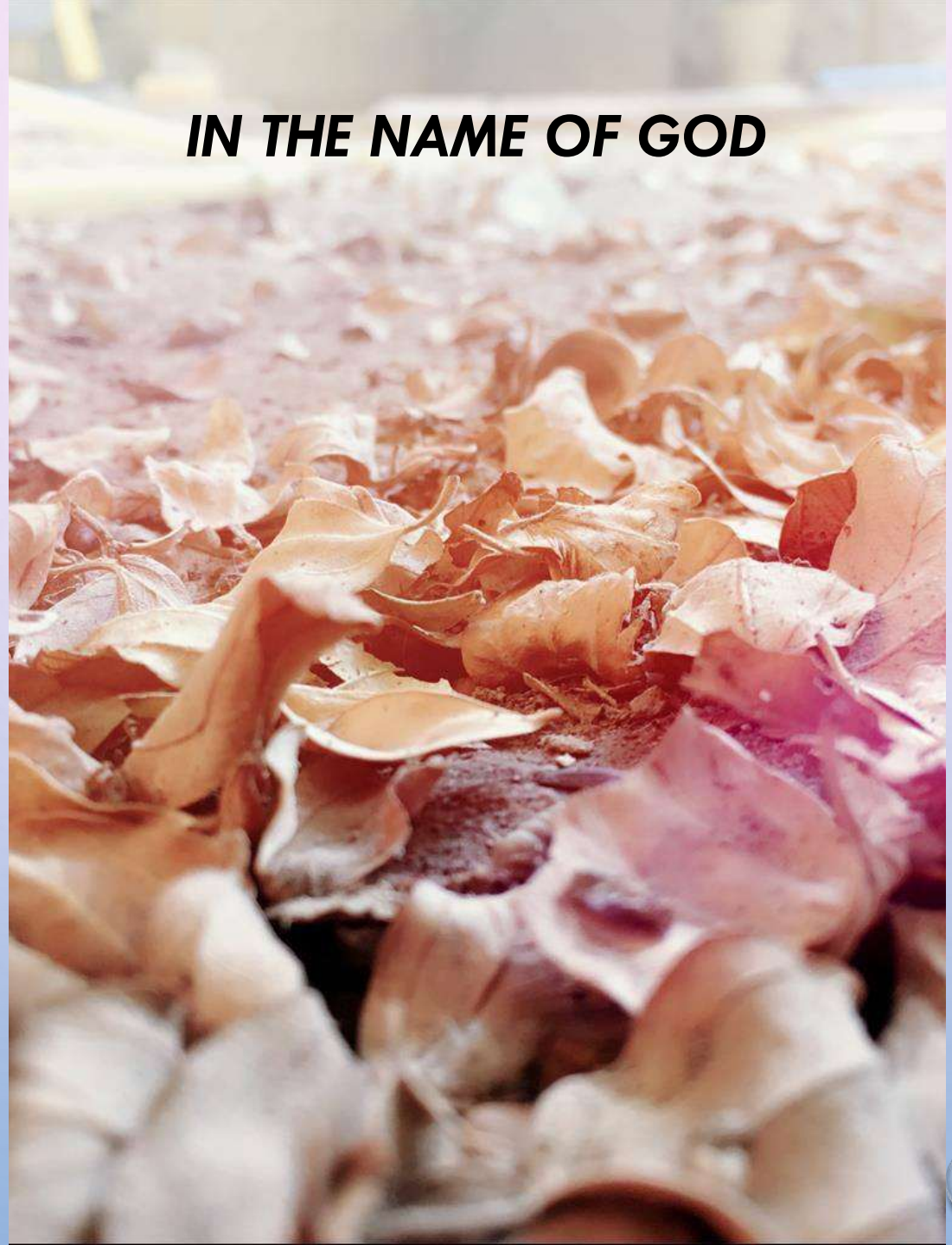
IN THE NAME OF GOD



CASE PRESENTATION

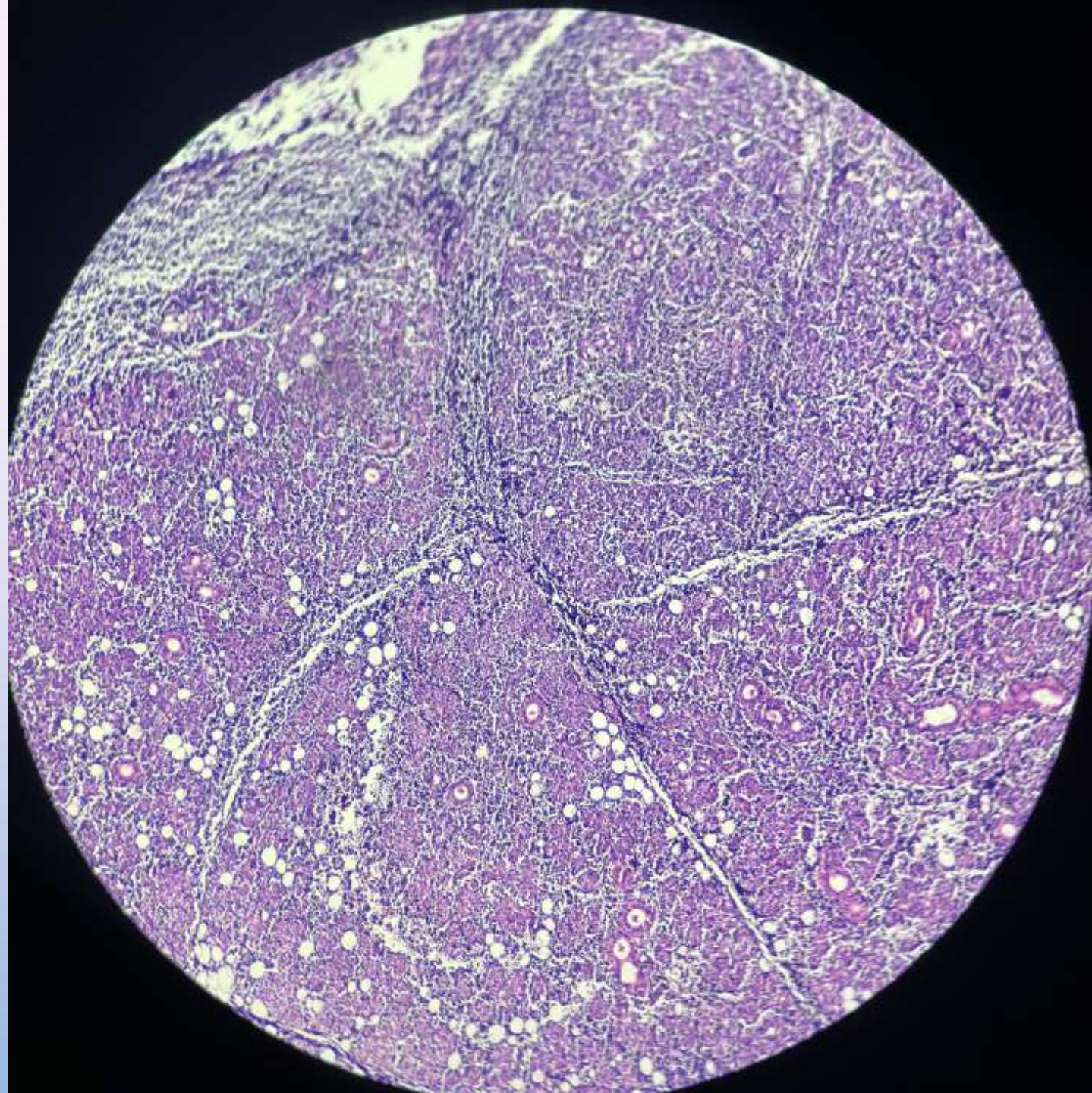
Presented by: Maedeh k. Beheshti

Supervised by: Dr. M. Heidarpour

HISTORY

- Patient is a 10 year old boy, present with unilateral cervical mass.

x4



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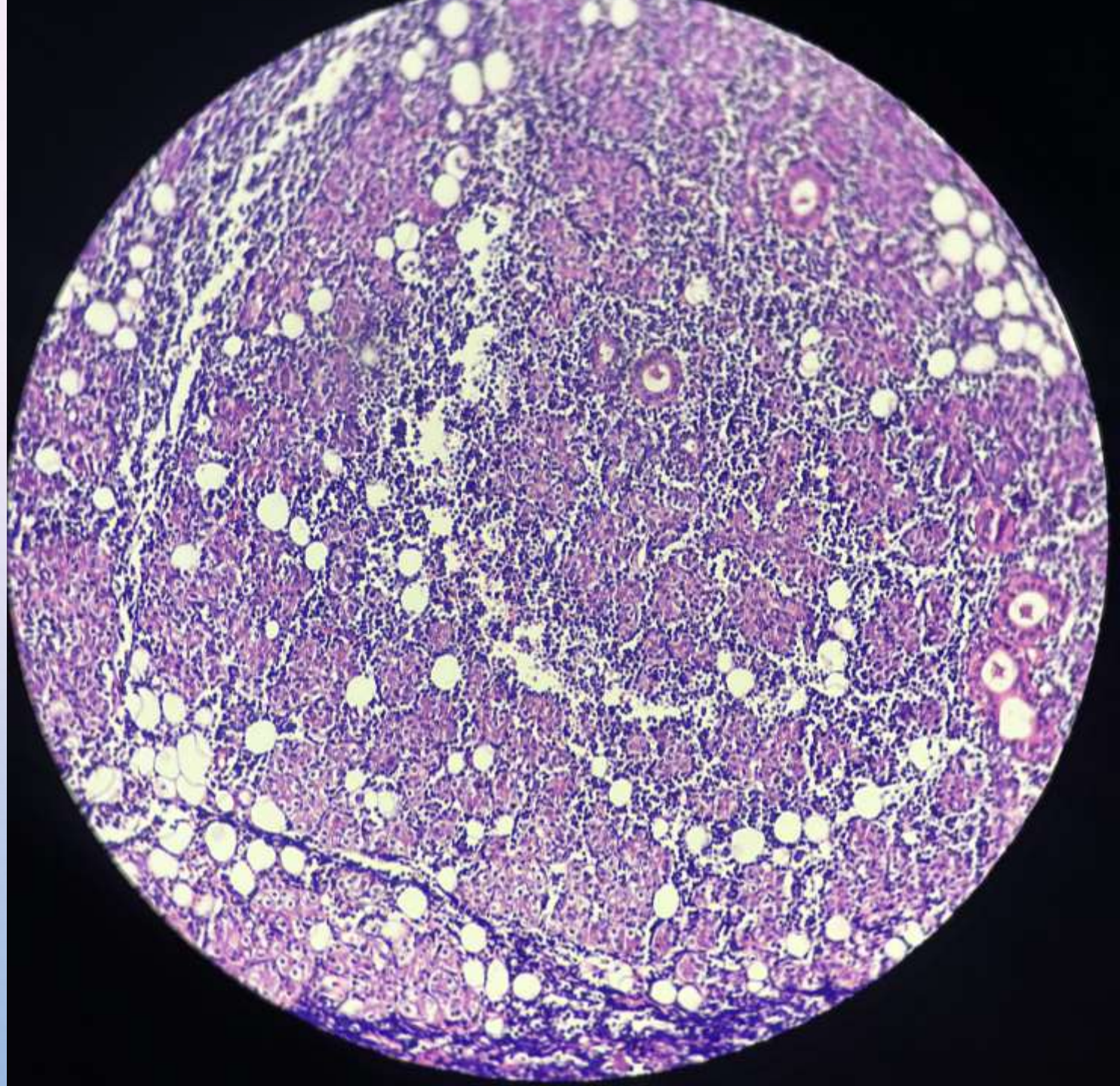

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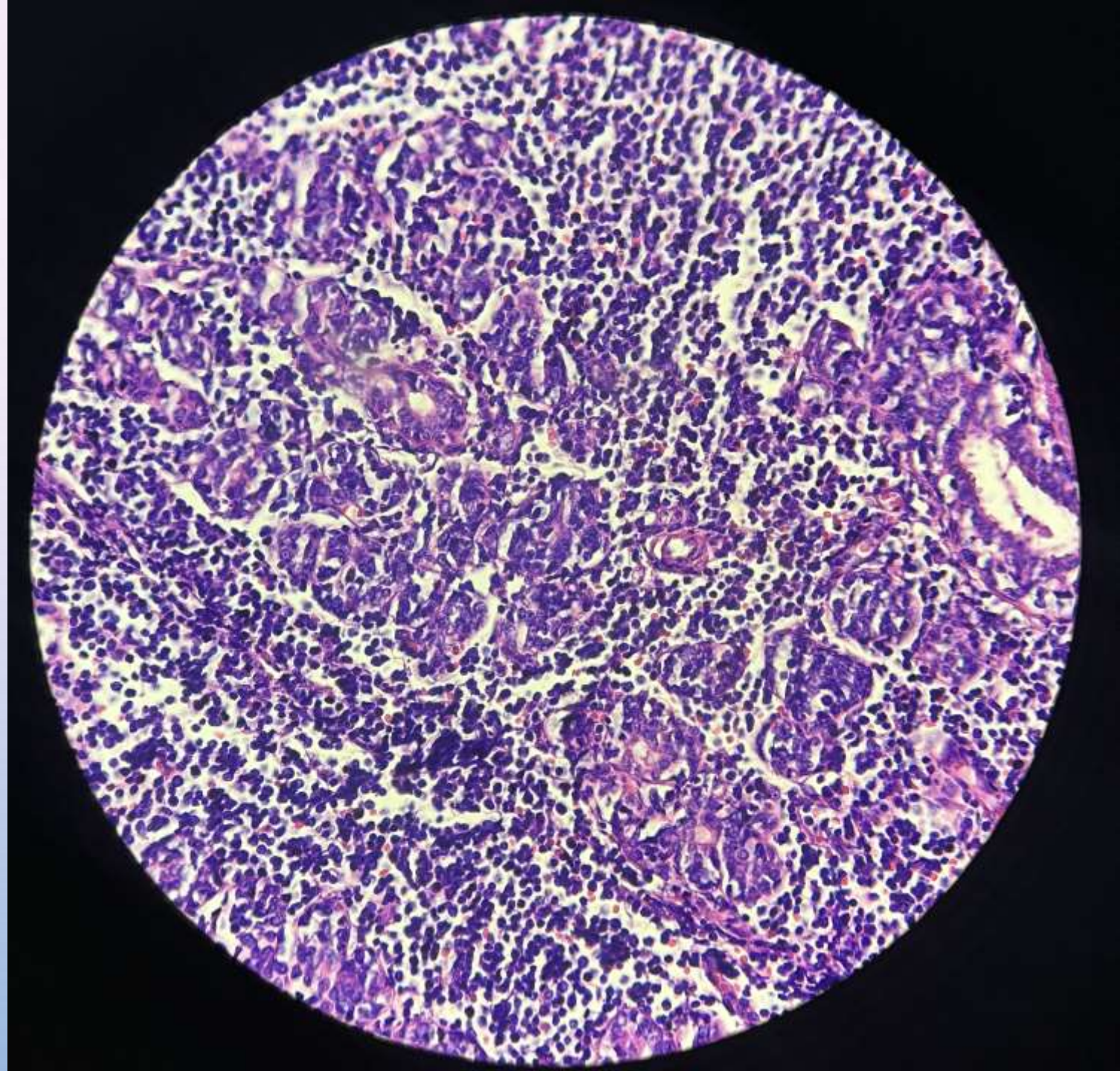

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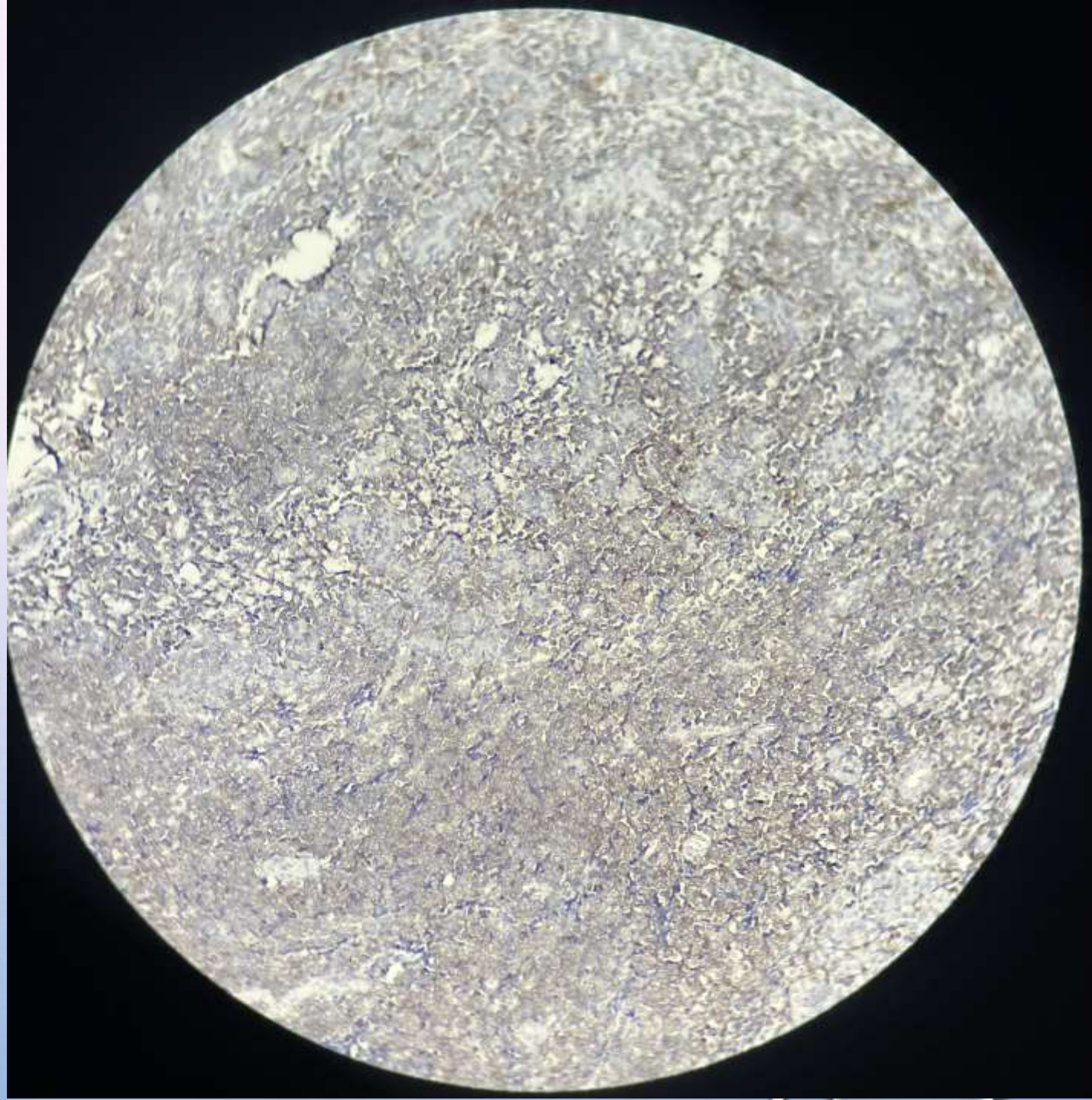

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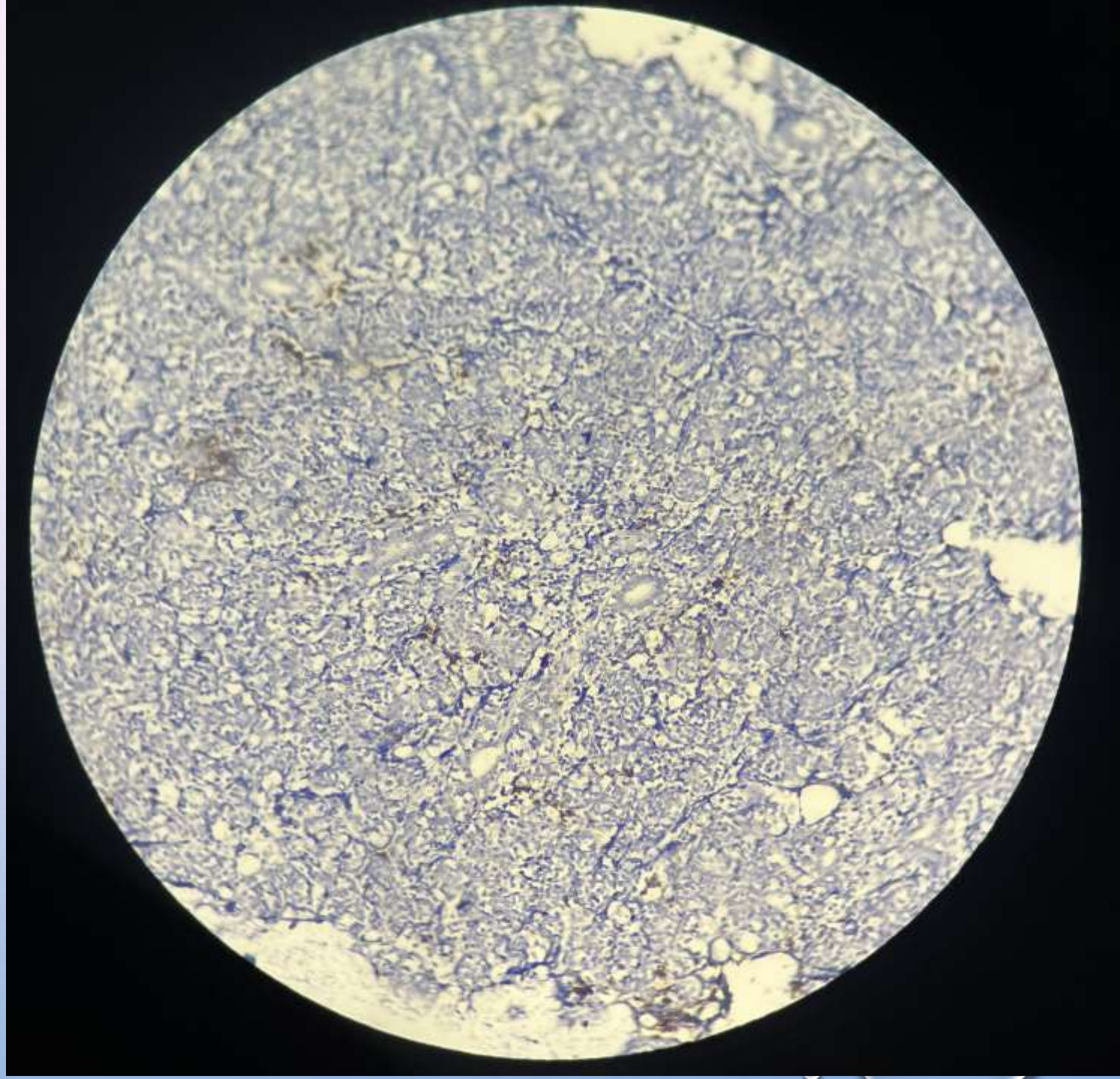

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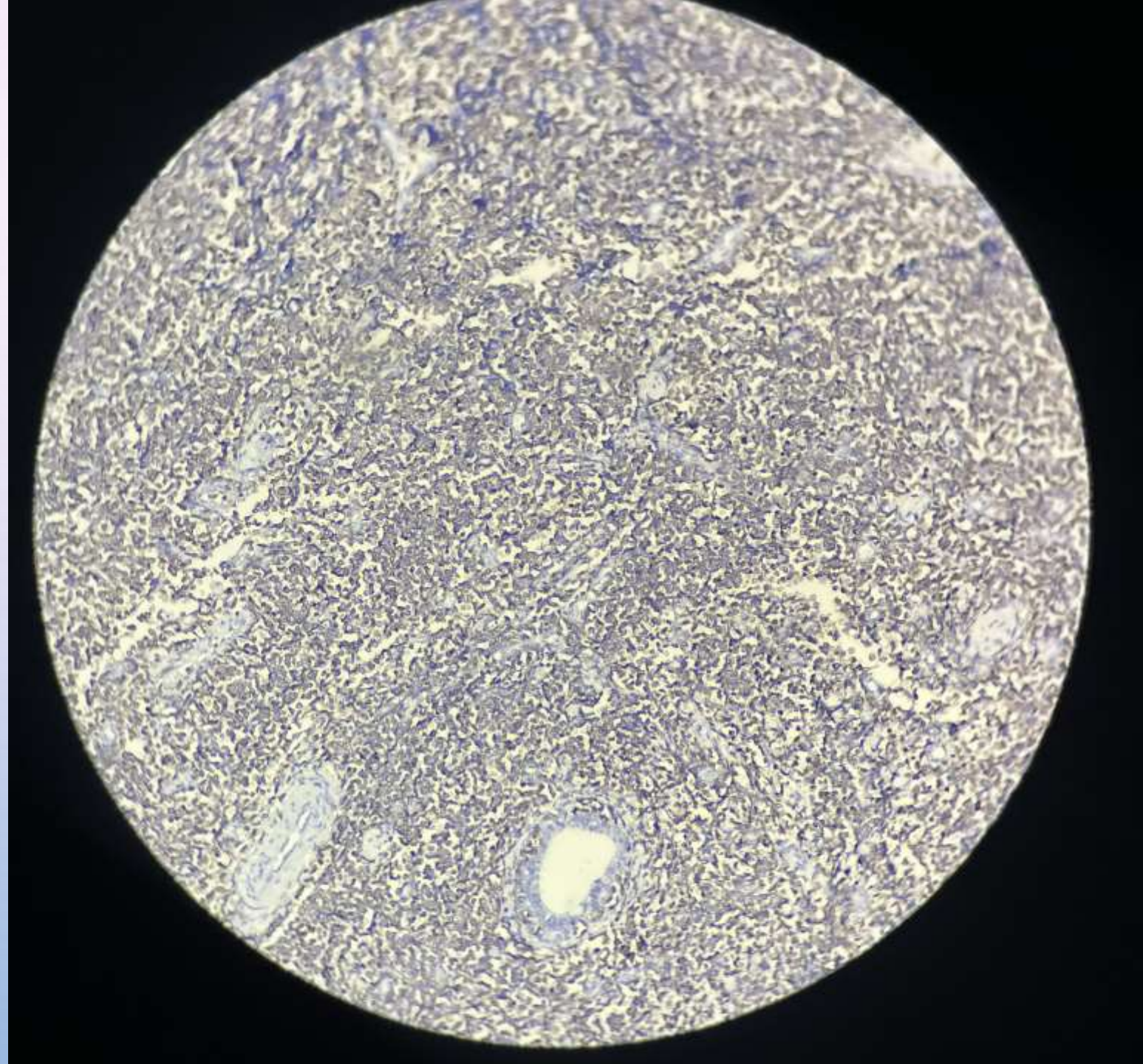
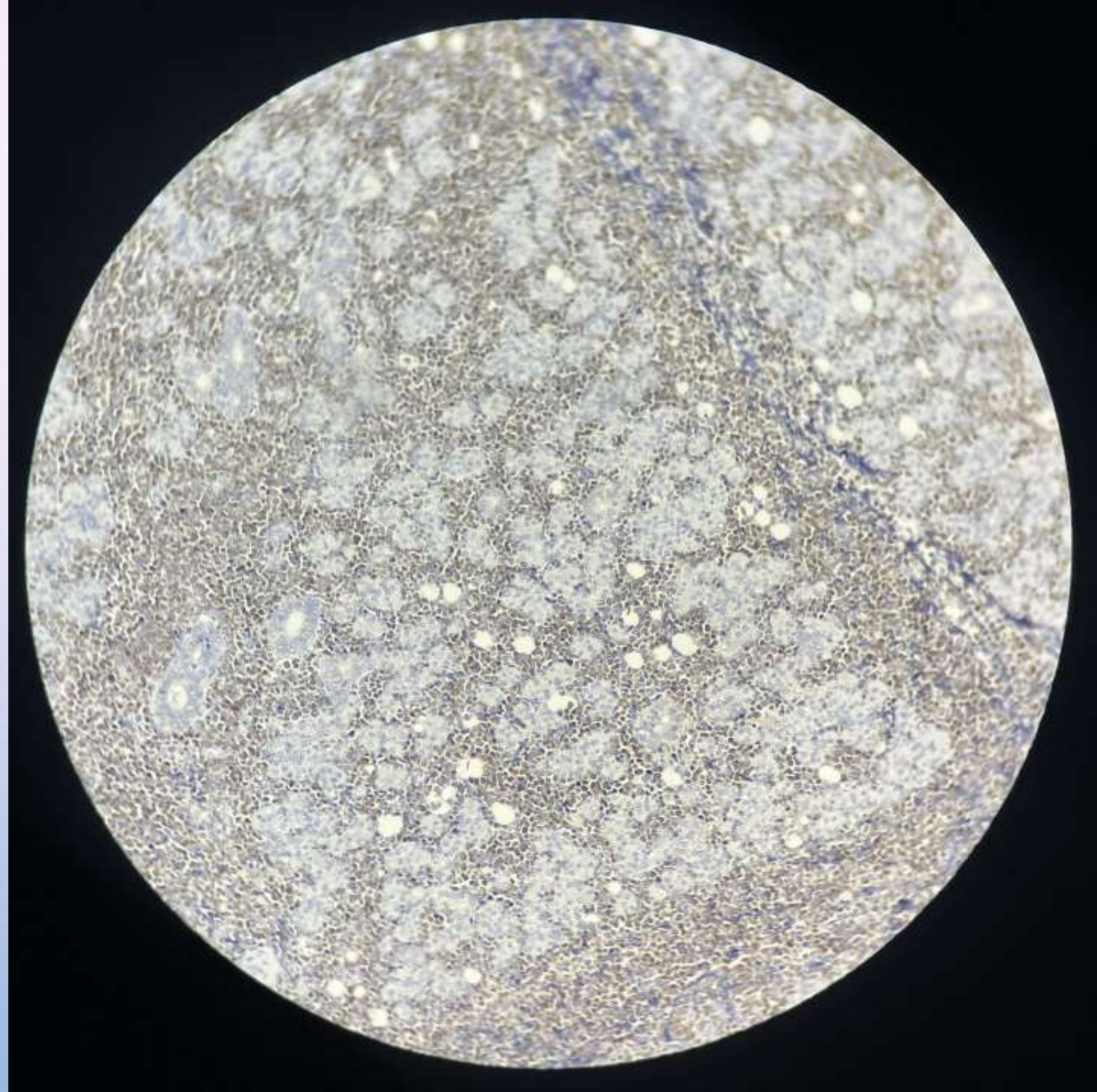
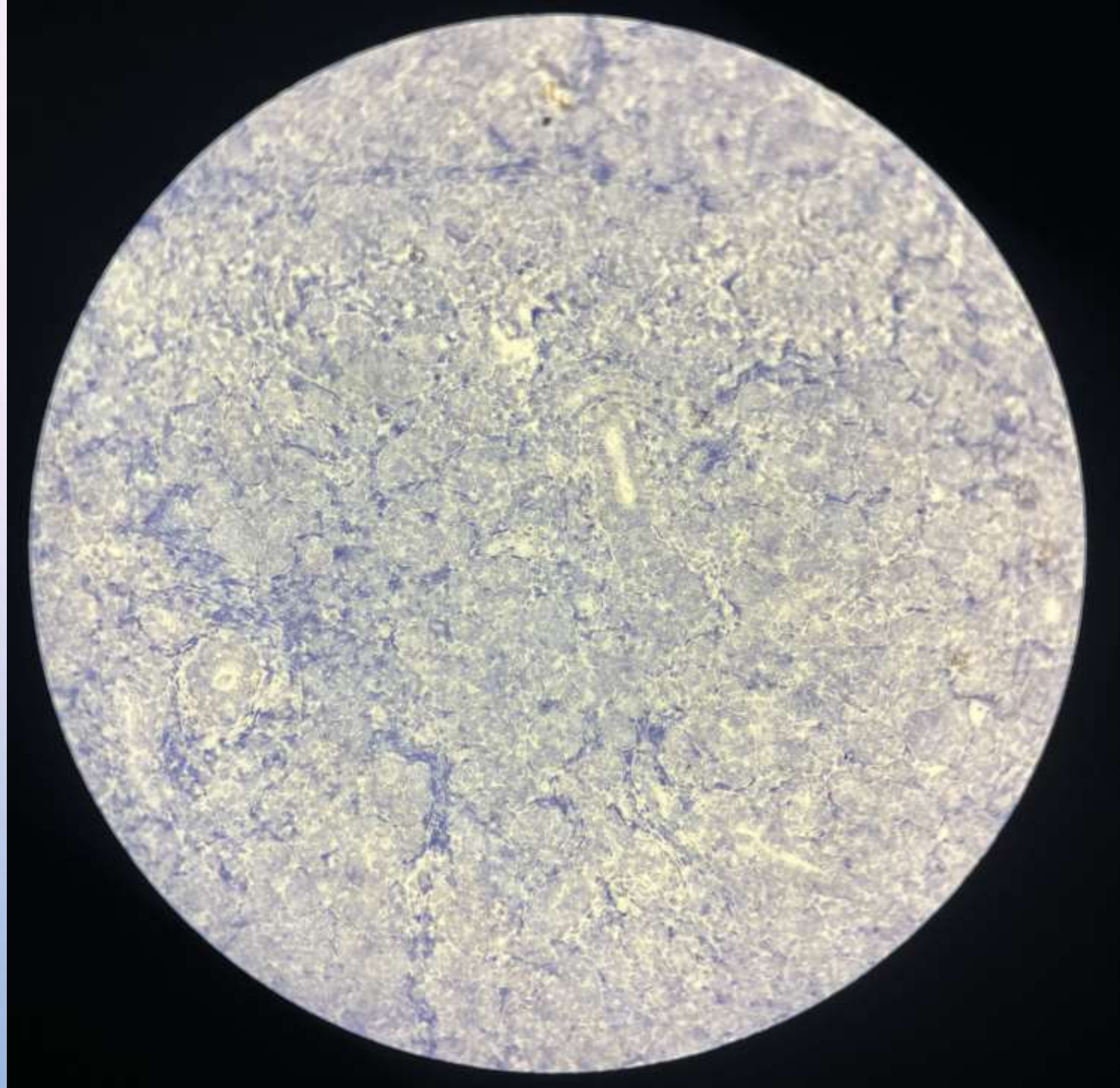


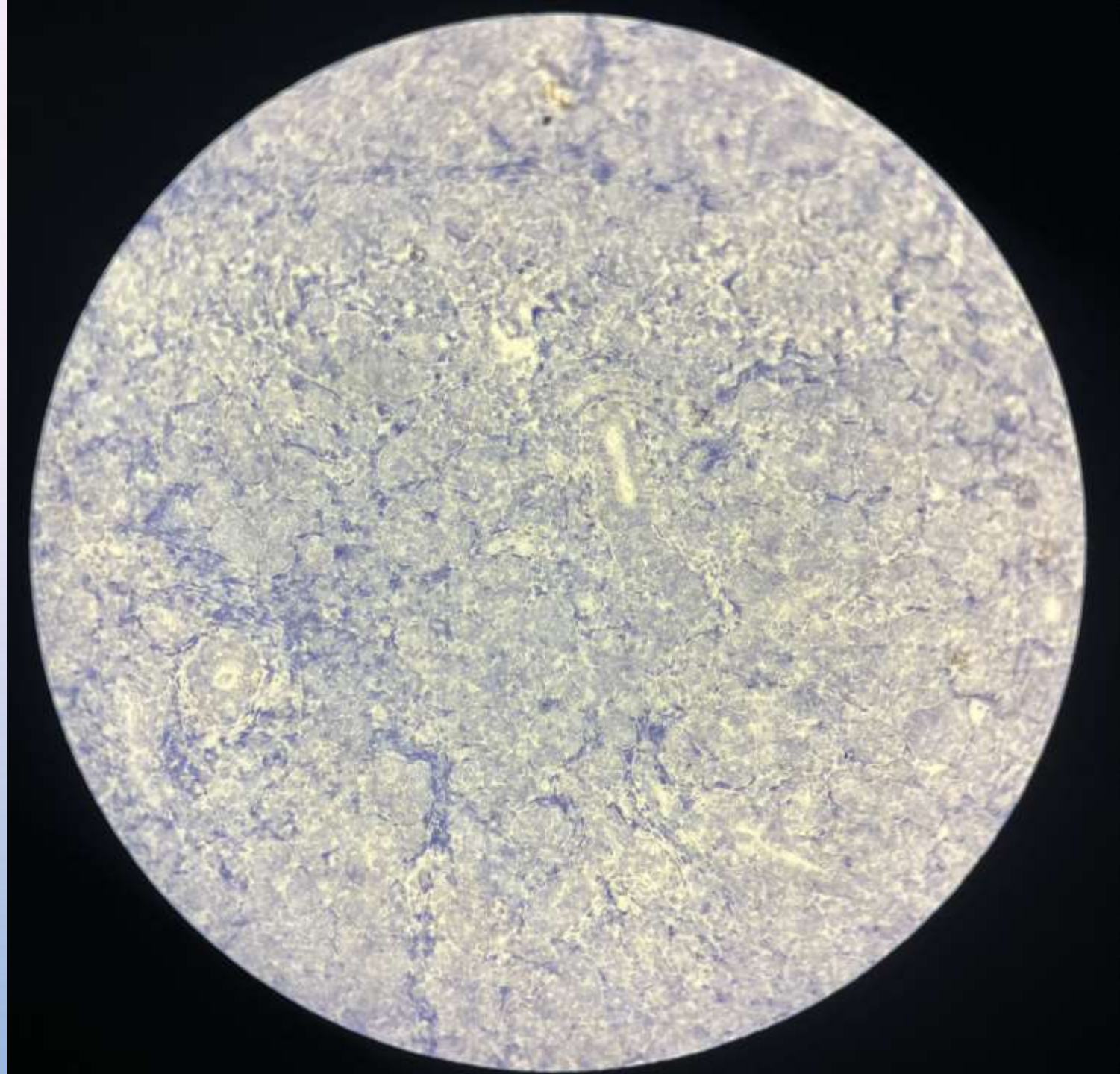
TdT



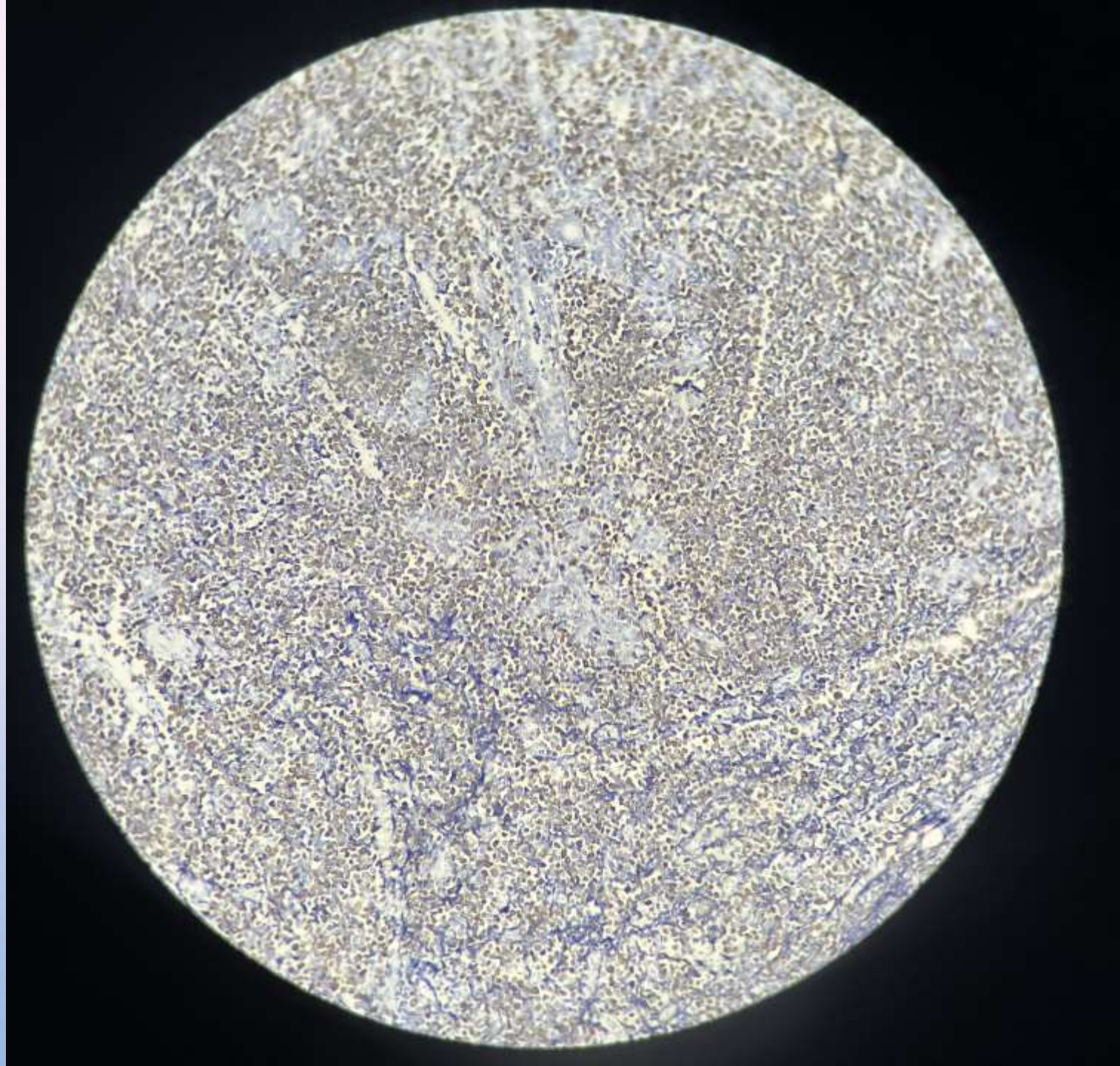
MYC



CD2 & CD3



KI67



WHAT IS YOUR DIFFERENTIAL DIAGNOSIS?

WHAT IS YOUR FINAL DIAGNOSIS?

DX

Salivary gland involvement by

B-Lymphoblastic lymphoma

DDX

1- Leukemic infiltration (in childhood)

2-MALToma (in adults)

- Salivary glands are compound exocrine glands composed of a ductal and an acinar portion, the latter of either serous or mucinous type.

- Salivary gland tumors are 12 times more frequent in the parotid than in the submandibular gland.

- The majority are benign and largely represented by the pleomorphic adenoma.

- In children, the most common salivary gland tumor is **benign mixed tumor**, but the proportion of malignant tumors is higher than in adults. Among the malignant neoplasms, **mucoepidermoidcarcinoma**, **adenoid cystic carcinoma**, and **acinic cell carcinoma** are the most common.

MALIGNANT LYMPHOMA OF SALIVARY GLAND

- The large majority of primary lymphomas of salivary gland involve the parotid gland, but the submaxillary gland can also be affected.

- The large majority of salivary gland lymphomas are of B-cell derivation, most commonly MALT lymphoma, followed by follicular lymphoma and diffuse large B-cell lymphoma

- Others—the majority—are composed of small lymphocytes and cells resembling monocytoid B cells. These tumors are currently regarded as belonging to the MALT/marginal zone type.

- T-cell lymphomas of the salivary gland are rare but well documented. These include tumors of T/natural killer cells. They may show prominent lymphoepithelial lesions and cannot therefore be reliably distinguished from B-cell tumors on morphologic grounds.

- Hodgkin lymphoma presenting as a primary salivary gland neoplasm is very rare. Most cases so diagnosed in the past would probably be reclassified today.

LYMPHOBLASTIC LYMPHOMA

- Primarily in children and adolescents, but it also occurs in adults.
- T-lymphoblastic lymphoma
- B-lymphoblastic lymphoma (15-20%)

T-LYMPHOBLASTIC LYMPHOMA

- Most lymphoblastic leukemias are of precursor t-cell lineage.
- In half of the cases there is a mediastinal mass in the thymic region.
- extremely aggressive.
- Microscopically:

✓ diffuse and relatively monomorphic pattern of proliferation, broken only by a focal starry sky appearance in some of the cases.

✓ Permeation of the wall of blood vessels in a targetoid fashion

✓ Scanty cytoplasm and a nucleus that has a round contour

✓ Finely stippled chromatin

✓ Inconspicuous nucleoli

✓ extremely high mitotic activity

T-LYMPHOBLASTIC LYMPHOMA

- IHC staining:

✓ TdT: The immunohistochemical hallmark of lymphoblastic lymphoma.

✓ Pan–T antigens: CD1, CD2, CD7, cytoplasmicCD3 and CD43, but usually do not express surface CD3.

✓ CD10: one-third of cases.

✓ CD34: useful for rare cases that demonstrate weak or negative TdT expression.

B-LYMPHOBLASTIC LYMPHOMA

- 15%–20% of the cases of lymphoblastic lymphoma.
- Usually do not present in the mediastinum.
- Predominantly extranodal tumors with low propensity for leukemic involvement.
- IHC staining:

✓CD19

✓CD79A

✓CD10

✓usually express TdT

✓Not surface immunoglobulin expression

✓Many are CD20 negative

DDX OF LYMPHOBLASTIC LYMPHOMA

1. Thymoma when in a mediastinal location
2. Ewing sarcoma/ peripheral neuroectodermal tumor (PNET)
3. Burkitt lymphoma
4. Blastoid variant of mantle cell lymphoma


Thanks for your attention